

**REMARKS**

Claims 1, 2, 5-67 are pending in this application. Claims 3-4, 18, 22-25, 27, 30, 32, 35, 37, 41, 47, 49, 51, 57-59, and 61-69 have been canceled. With the exception of claims 3-4, 18, 41, 68, and 69, these claims were previously withdrawn due to the Restriction Requirement and Applicants reserve the right to prosecute them in divisional applications. Claims 1, 2, 5-17, 19-21, 26, 28, 29, 31, 33, 34, 36, 38-40, 42-46, 48, 50, 52-56, and 60 are presented for reconsideration.

In item 5 of the Office Action, the Office indicated that claims drawn to “an isolated nucleic acid encoding a neuromedin receptor protein of SEQ ID NO: 2, SEQ ID NO: 4, SEQ ID NO: 6, or SEQ ID NO: 8” would be allowable. The Office specifically noted that claim 1 would be allowable if the limitation “wherein the polypeptide is an IGS4 polypeptide” was deleted and replaced with the limitation “wherein the polypeptide is a neuromedin receptor protein.” Merely to further prosecution, and without reducing the scope of this claim, Applicants have amended claim 1 as indicated. Accordingly, Applicants respectfully request that claim 1 be allowed.

In item 5, the Office also indicated that claim 17 would be allowable if the term “IGS4” was deleted and replaced with the term “neuromedin receptor.” Again, solely to further prosecution and without limiting the scope of the claim, Applicants have amended claim 17 according to the Office’s suggestion and request that it be allowed. In addition, Applicants have amended the remaining claims to either delete the term “IGS4” or to replace it with the term “neuromedin receptor.”

In item 6, the Office objected to claims 21, 26, 31, and 38 as being of improper dependent form because it asserted that they fail to further limit the subject matter of a previous claim. Specifically, the Office indicated that claim 21 does not refer to the isolated polypeptide claimed in claim 17. As amended, both claims 17 and 21 refer to an "isolated polypeptide." Therefore, claim 21 properly depends on claim 17 and Applicants respectfully request that the objection be withdrawn.

In item 6, the Office also objected to claims 26 and 31 because it asserted that they "do not actually employ an 'isolated' polypeptide of claim 17 or an IGS4 polypeptide having any recited structural limitations." As amended, claims 26 and 31 are independent claims and do not rely on limitations of claim 17. Accordingly, Applicants respectfully request that the rejection be withdrawn.

Finally, in item 6, the Office rejected claim 38, asserting that the claimed method could be infringed by a process that does not use a membrane preparation as claimed in claim 14 and that, therefore, it is improperly dependent on claim 14. As amended, claim 38 is independent and Applicants request that this rejection be withdrawn.

In item 7, the Office rejected claims 6-8, 42 and 43 under 35 U.S.C. § 101 because it asserted that a claim to a nucleotide "sequence" is not statutory subject matter. As amended, claim 6 and the claims that ultimately depend on it, claims 7, 8, 42, and 43, recite "an isolated polynucleotide" instead of a nucleotide sequence. Because this is statutory subject matter, Applicants respectfully request that these rejections be withdrawn.

In item 8, the Office rejected claims 9, 11-13, 15, 16, 18, 31, 36, 60, 68, and 69 under 35 U.S.C. § 112, first paragraph, because it asserted that there is no support in the specification for any sequence other than the four amino acid sequences of SEQ ID NO: 2, 4, 6, and 8 and that these claims recite sequences with modifications of up to 20% of the recited sequences. The terms “at least 80% identity” and “at least 80% identical” have been deleted from claims 9 and 18, thus obviating the grounds of this rejection. In addition, Applicants traverse this rejection for claim 31 because it does not recite “having at least 80% sequence identity.” Accordingly, Applicants request that the rejection of these claims be withdrawn.

In item 9, the Office recited rejections under 35 U.S.C. § 112, second paragraph. Specifically, in item 9.1, the Office maintained the rejection of claims 1, 2, 5-21, 26, 28, 29, 31, 33, 34, 36, 38-46, 48, 50, 52-56, 60, 68, and 69 as being vague and indefinite because of the term “IGS4.” Although Applicants disagree, merely to further prosecution they have amended the claims to either delete the term “IGS4” or replace it with the term “neuromedin receptor.” Applicants note that these amendments do not change the scope of the subject matter claimed. Accordingly, Applicants respectfully request that this rejection be withdrawn.

In item 9.2, the Office rejected claims 19 and 20 because it found the relationship between the limitation of the recited SEQ ID NOs and an amino acid sequence of “a neuromedin receptor protein” to be unclear. The term “comprising an amino acid sequence of a neuromedin receptor protein” has been deleted from these claims and,

thus, the claims are clear. Applicants respectfully request that the rejection be withdrawn.

In item 9.3, the Office rejected claims 8, 19-21, 28, 33, 34, 43, 45, 50, and 60 as being vague because it asserted that the term “high affinity” is not clearly defined in the specification, under *Ex parte Wu*, 10 U.S.P.Q.2d 2031, 2033 (Bd. Pat. App. & Int. 1989). This case, though, is inapposite to the circumstances in the instant case. Applicants disagree with the basis for this rejection for several reasons.

First, *Wu* concerns the term “optionally” in a claim, whereas the language the Office has cited in its rejection appears in the specification and is not “optional.” Even if the Office found the disputed specification language to be somehow “optional,” the Board concluded that the term in *Wu*’s claim was clear and should not have been rejected under 35 U.S.C. § 112, second paragraph. Thus, had the Office questioned language in Applicants’ specification, it would have no reason from *Wu* to reject the claims.

In addition, although the *Wu* Board may have noted, in dictum, that the claim term “such as” could be improper under some circumstances, it also noted that “the accepted expressions ‘up to’, ‘0 to . . . %’, ‘not more than’, . . . are recognized to indicate the possible, but not required, presence of a component.” *Id.* In fact, the language that the Office objects to in the instant specification provides similarly acceptable ranges. On page 14, lines 16-19, the specification provides that “the term ‘high affinity’ is understood as to describe a ligand binding showing log EC<sub>50</sub> values of at least below –6.00 (approx. 660 nm), preferably log EC<sub>50</sub> below –7.00 (approx. 55 nm), more

preferably log EC<sub>50</sub> below -9.00 (approx. 500 pM to 1.2 nM), and most preferably log EC<sub>50</sub> below -10.00 (approx. 50-100 pM)." Thus, *Wu* supports the allowability of the claim term "high affinity," instead of its rejection.

Finally, Applicants note that none of the other decisions cited by the Office, *Ex parte Steigerwald*, 131 U.S.P.Q. 74 (Bd. App. 1961), *Ex parte Hall*, 83 U.S.P.Q. 38 (Bd. App. 1948), and *Ex parte Hasche*, 86 U.S.P.Q. 481 (Bd. App. 1949), pertain to language similar to that objected to by the Office, or to a range of values as the definition for a claim term as support for the claim term "high affinity."

Nevertheless, solely because Applicants desire timely allowance of the claims, claims 8, 10, 19, 21, 28, and 33 have been amended to recite ligand binding "with a log EC<sub>50</sub> value of at least below -6.00," instead of "high affinity." This phrase is supported on page 14 of the specification, at lines 16-17, and does not add new matter. Nor does this amendment alter the scope of the claims as originally submitted. Because this phrase is definite, Applicants respectfully request that the rejection of these claims be withdrawn. Applicants also note that claim 60 has been canceled, thus obviating a response to this rejection for that claim.

In item 9.4, the Office rejected claim 42 as being vague and indefinite because of a perceived lack of antecedent basis for the term "the isolated polynucleotide of claim 6." As amended, claim 6 is drawn to "[a]n isolated polynucleotide" and claim 42 recites "[t]he isolated polynucleotide of claim 6. . . ." Thus, the isolated polynucleotide of claim 42 has appropriate antecedent basis in claim 6 and Applicants respectfully request that the rejection be withdrawn.

In item 10, the Office rejected claims 15 and 16 under 35 U.S.C. § 112, second paragraph, as being incomplete for omitting an expression system encoding SEQ ID NO: 2, SEQ ID NO: 4, SEQ ID NO: 6, or SEQ ID NO: 8. Applicants traverse this rejection and note that claims 15 and 16 ultimately depend on claim 9, which recites an expression system encoding SEQ ID NO: 2, SEQ ID NO: 4, SEQ ID NO: 6, or SEQ ID NO: 8. Accordingly, Applicants respectfully request that the rejections of claims 15 and 16 be withdrawn.

Applicants respectfully request that this Amendment under 37 C.F.R. § 1.116 be entered by the Examiner, placing claims 1, 2, 5-17, 19-21, 26, 28, 29, 31, 33, 34, 36, 38-40, 42-46, 48, 50, 52- 56, and 60 in condition for allowance. Applicants submit that the proposed amendments presented herein do not raise new issues or necessitate the undertaking of any additional search of the art by the Examiner, since all of the elements and their relationships claimed were either earlier claimed or inherent in the claims as examined. Therefore, this Amendment should allow for immediate action by the Examiner.

Finally, Applicants submit that the entry of the amendment would place the application in better form for appeal, should the Examiner dispute the patentability of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our Deposit Account No. 06-0916.

Respectfully submitted,

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Dated: February 23, 2005

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